JP2002-354543A

FIG. 1

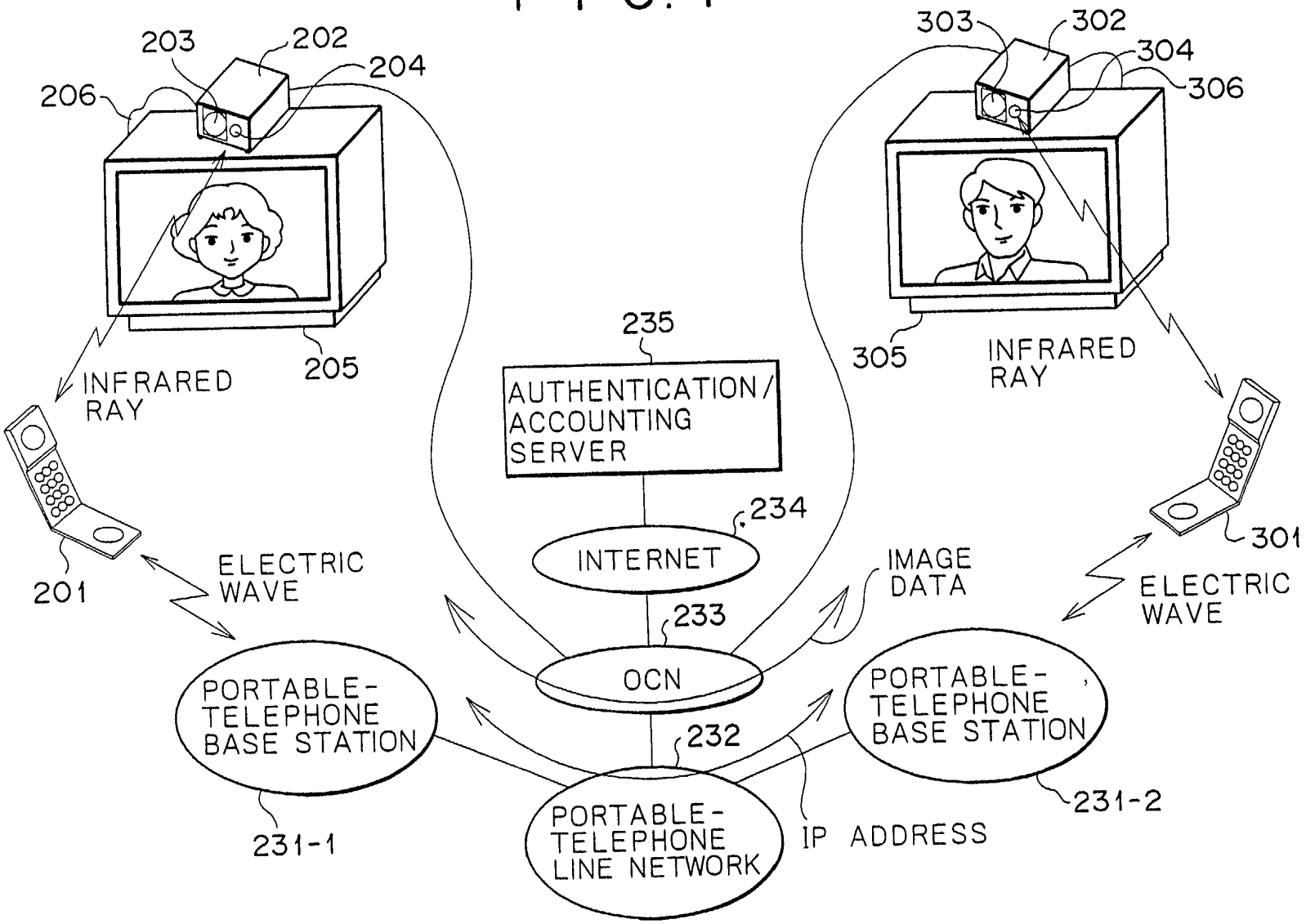

FIG. 2

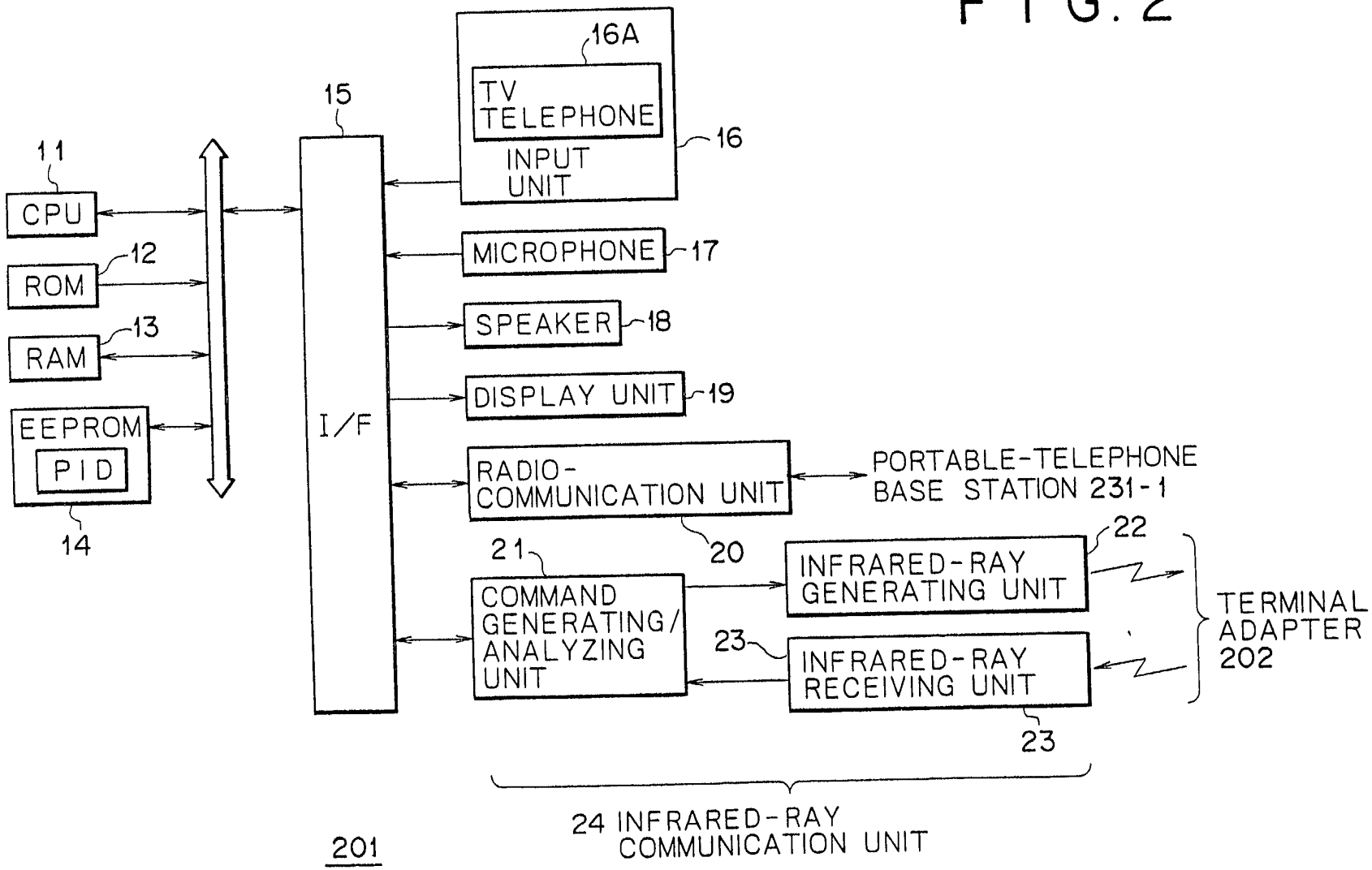
16A
TV TELEPHONE
INPUT UNIT
16
15
11
CPU
12
ROM
13
RAM
EEPROM
PID
14
I/F
MICROPHONE
17
SPEAKER
18
DISPLAY UNIT
19
RADIO-COMMUNICATION UNIT
20
PORTABLE-TELEPHONE BASE STATION 231-1
21
COMMAND GENERATING/ ANALYZING UNIT
22
INFRARED-RAY GENERATING UNIT
23
INFRARED-RAY RECEIVING UNIT
TERMINAL ADAPTER 202
24 INFRARED-RAY COMMUNICATION UNIT
201

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FIG. 3

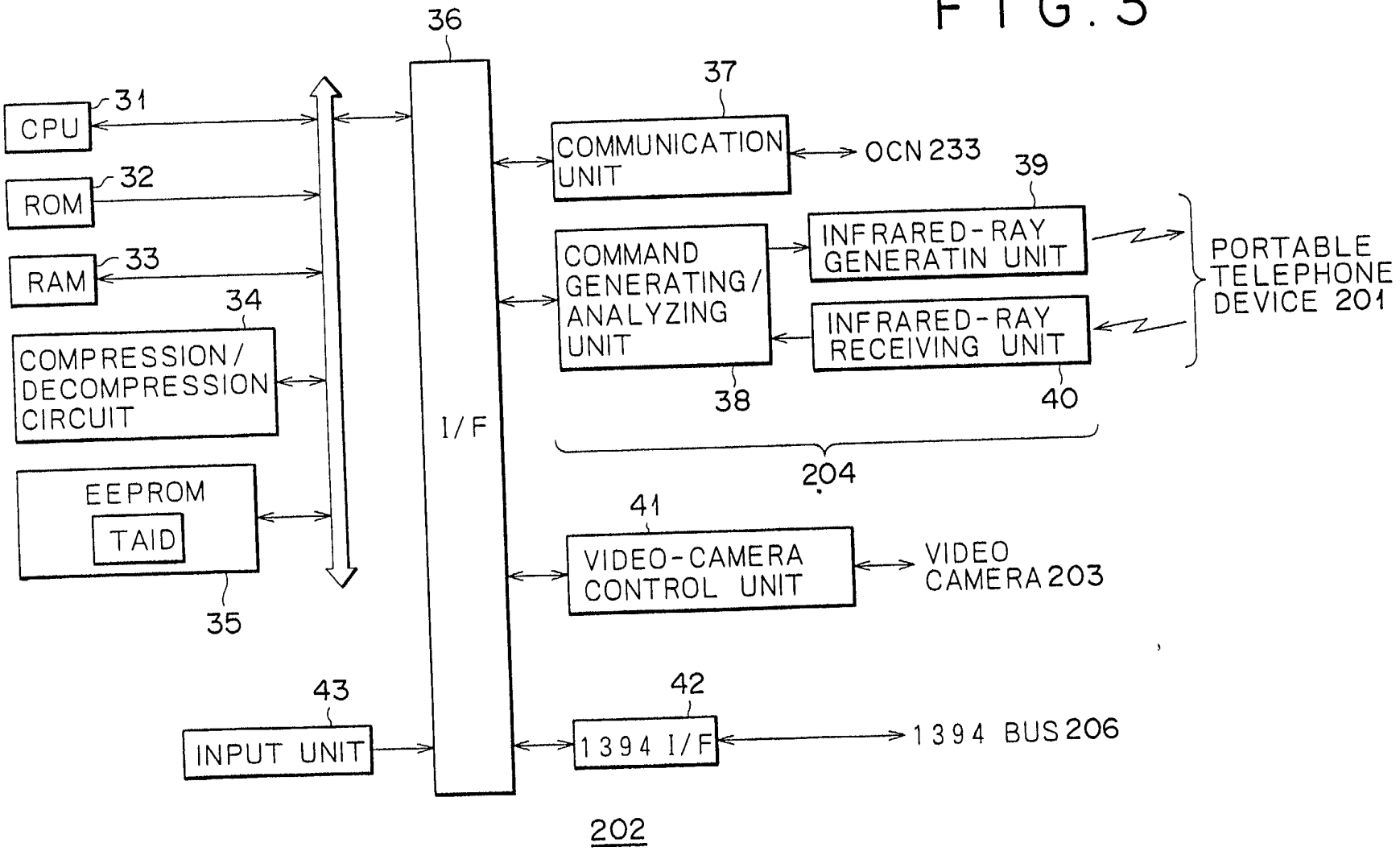


FIG.4

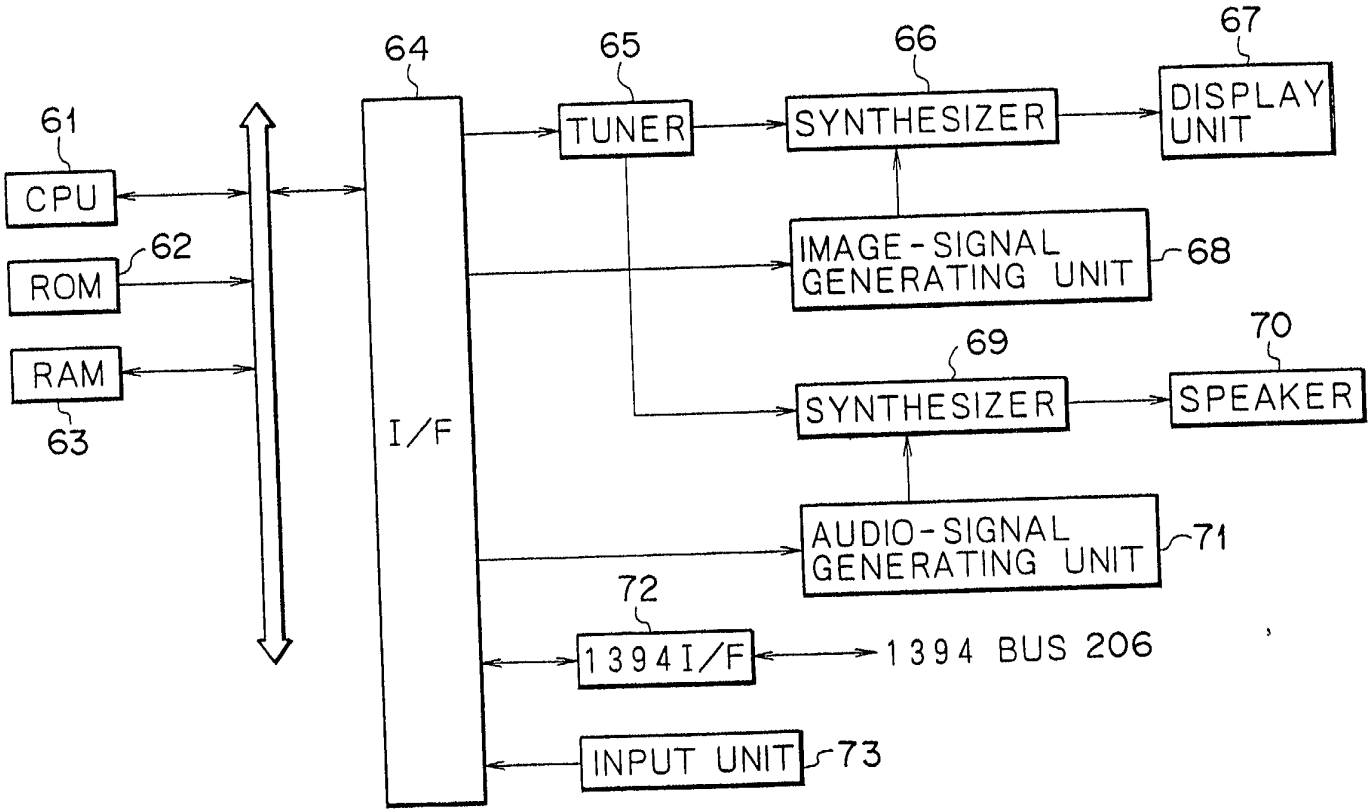
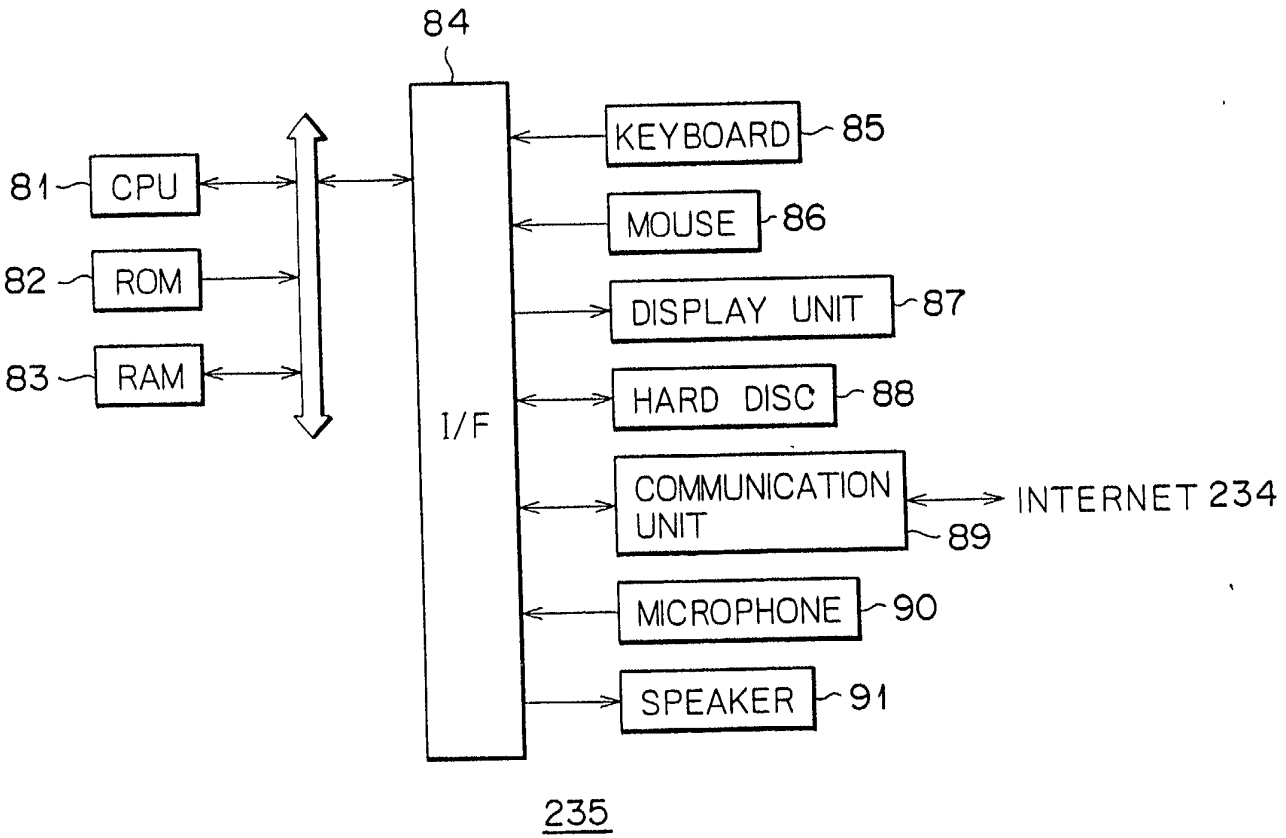

61
CPU
62
ROM
RAM
63
64
I/F
65
TUNER
66
SYNTHESIZER
67
DISPLAY UNIT
IMAGE-SIGNAL GENERATING UNIT
68
69
SYNTHESIZER
70
SPEAKER
AUDIO-SIGNAL GENERATING UNIT
71
72
1394 I/F
1394 BUS 206
INPUT UNIT
73
205

FIG. 5


84
81
CPU
82
ROM
83
RAM
I/F
KEYBOARD
85
MOUSE
86
DISPLAY UNIT
87
HARD DISC
88
COMMUNICATION UNIT
89
INTERNET 234
MICROPHONE
90
SPEAKER
91
235

T00227 "EP0742007"

FIG.6

PID	TAID	USAGE START DATE AND TIME	USAGE END DATE AND TIME	CUMULATED CHARGE	CREDIT-CARD NUMBER

FIG. 7

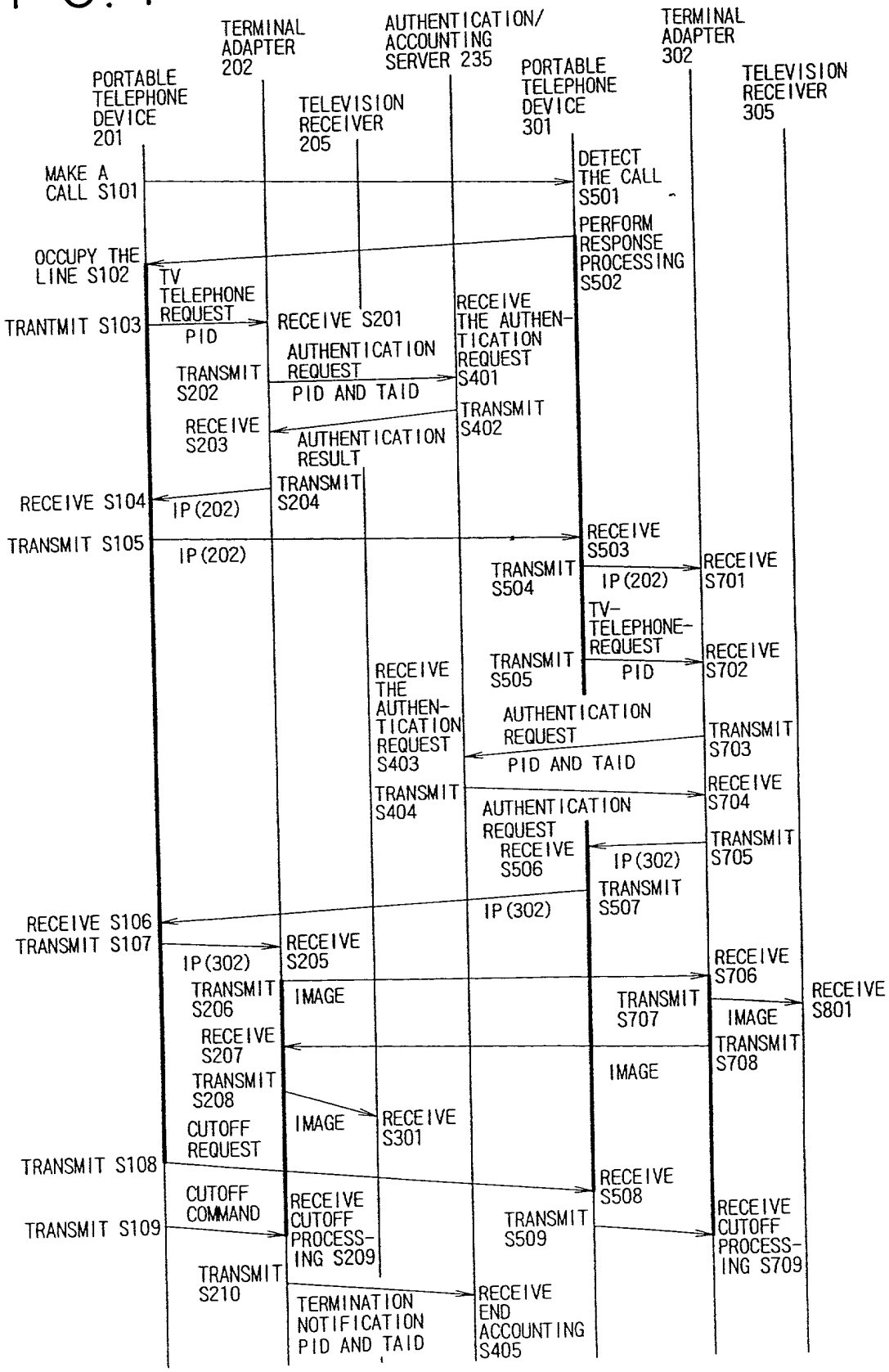

PORTABLE TELEPHONE DEVICE 201
TERMINAL ADAPTER 202
TELEVISION RECEIVER 205
AUTHENTICATION/ ACCOUNTING SERVER 235
PORTABLE TELEPHONE DEVICE 301
TERMINAL ADAPTER 302
TELEVISION RECEIVER 305
MAKE A CALL S101
DETECT THE CALL S501
PERFORM RESPONSE PROCESSING S502
OCCUPY THE LINE S102
TV TELEPHONE REQUEST PID
TRANTMIT S103
RECEIVE S201
TRANSMIT S202
AUTHENTICATION REQUEST PID AND TAID
RECEIVE THE AUTHENTICATION REQUEST S401
TRANSMIT S402
RECEIVE S203
AUTHENTICATION RESULT
TRANSMIT S204
RECEIVE S104
IP (202)
TRANSMIT S105
IP (202)
RECEIVE S503
TRANSMIT S504
IP (202)
RECEIVE S701
TV-TELEPHONE-REQUEST PID
TRANSMIT S505
RECEIVE S702
RECEIVE THE AUTHENTICATION REQUEST S403
AUTHENTICATION REQUEST PID AND TAID
TRANSMIT S703
TRANSMIT S404
RECEIVE S704
AUTHENTICATION REQUEST RECEIVE S506
IP (302)
TRANSMIT S705
TRANSMIT S507
IP (302)
RECEIVE S106
TRANSMIT S107
IP (302)
RECEIVE S205
RECEIVE S706
TRANSMIT S206
IMAGE
TRANSMIT S707
IMAGE
RECEIVE S801
RECEIVE S207
TRANSMIT S708
TRANSMIT S208
IMAGE
CUTOFF REQUEST
RECEIVE S301
TRANSMIT S108
RECEIVE S508
CUTOFF COMMAND
TRANSMIT S109
RECEIVE CUTOFF PROCESSING S209
TRANSMIT S509
RECEIVE CUTOFF PROCESSING S709
TRANSMIT S210
TERMINATION NOTIFICATION PID AND TAID
RECEIVE END ACCOUNTING S405

FIG. 8

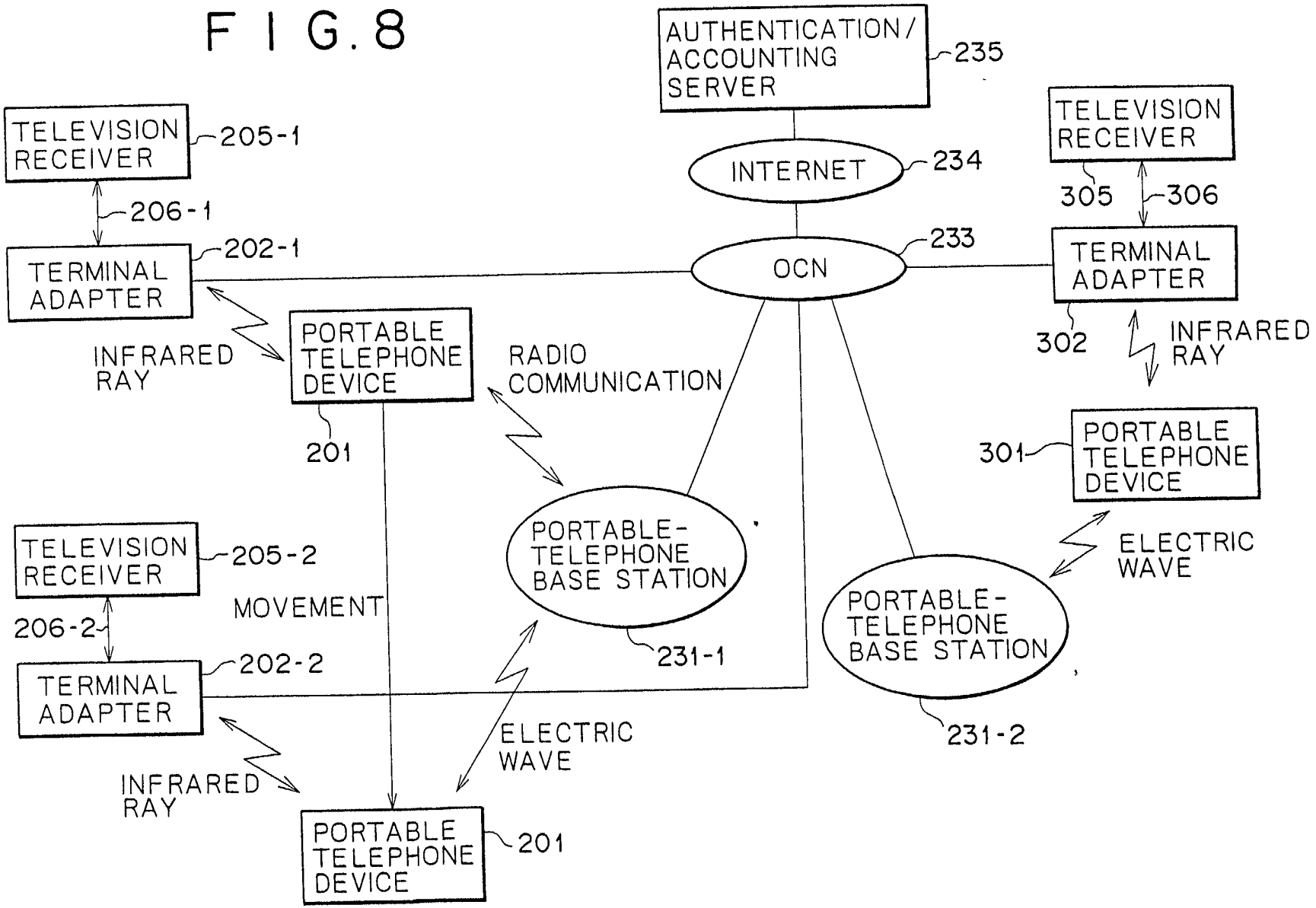

AUTHENTICATION/ ACCOUNTING SERVER
235
INTERNET
234
OCN
233
TELEVISION RECEIVER
205-1
206-1
TERMINAL ADAPTER
202-1
INFRARED RAY
PORTABLE TELEPHONE DEVICE
201
RADIO COMMUNICATION
TELEVISION RECEIVER
305
306
TERMINAL ADAPTER
302
INFRARED RAY
301
PORTABLE TELEPHONE DEVICE
ELECTRIC WAVE
PORTABLE-TELEPHONE BASE STATION
231-1
PORTABLE-TELEPHONE BASE STATION
231-2
TELEVISION RECEIVER
205-2
206-2
MOVEMENT
TERMINAL ADAPTER
202-2
INFRARED RAY
ELECTRIC WAVE
PORTABLE TELEPHONE DEVICE
201

FIG.9

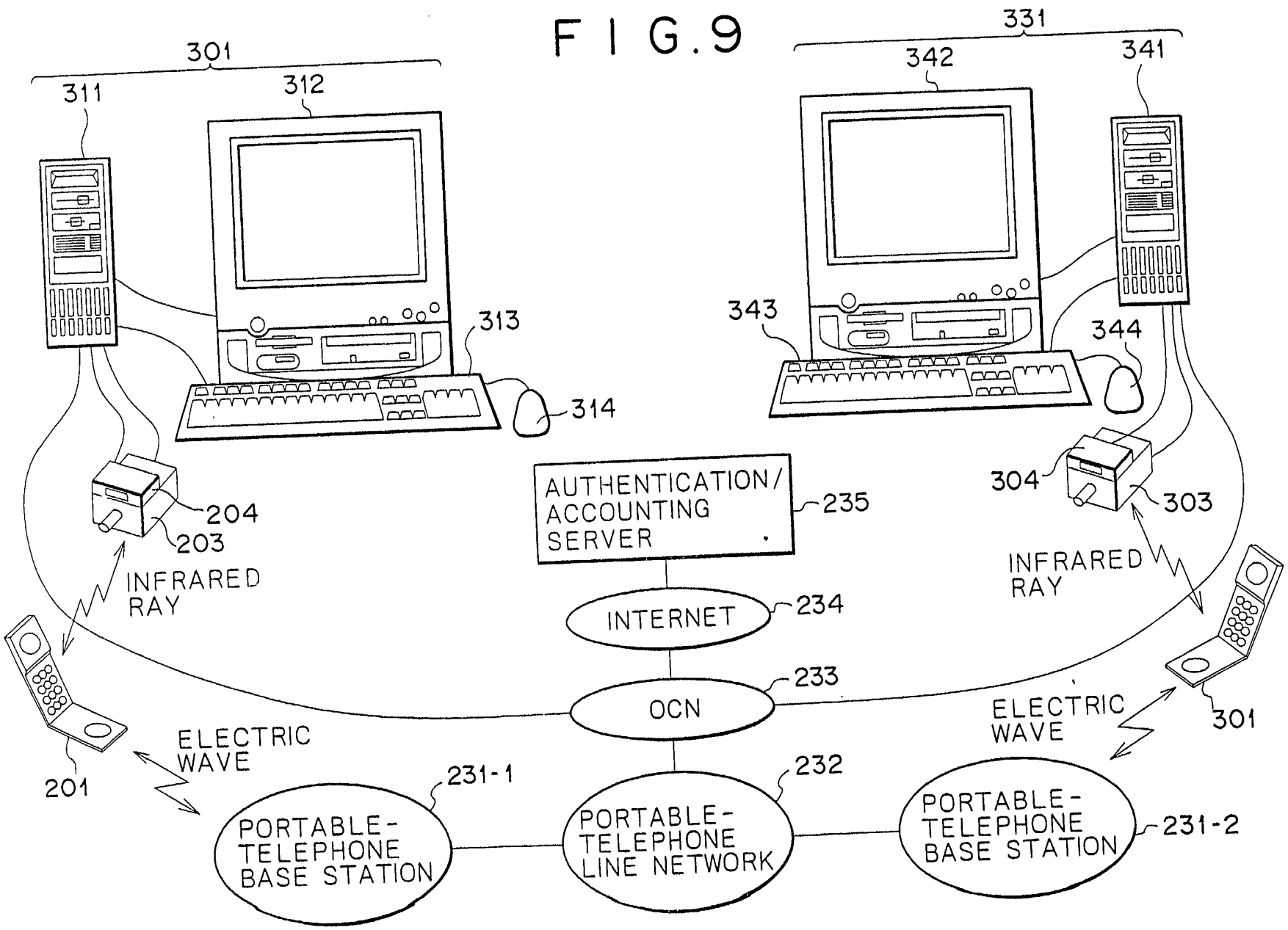

301
311
312
313
314
331
342
341
343
344
204
203
304
303
INFRARED RAY
INFRARED RAY
AUTHENTICATION/ ACCOUNTING SERVER
235
INTERNET
234
OCN
233
201
ELECTRIC WAVE
ELECTRIC WAVE
301
231-1
232
231-2
PORTABLE-TELEPHONE BASE STATION
PORTABLE-TELEPHONE LINE NETWORK
PORTABLE-TELEPHONE BASE STATION

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FIG. 10

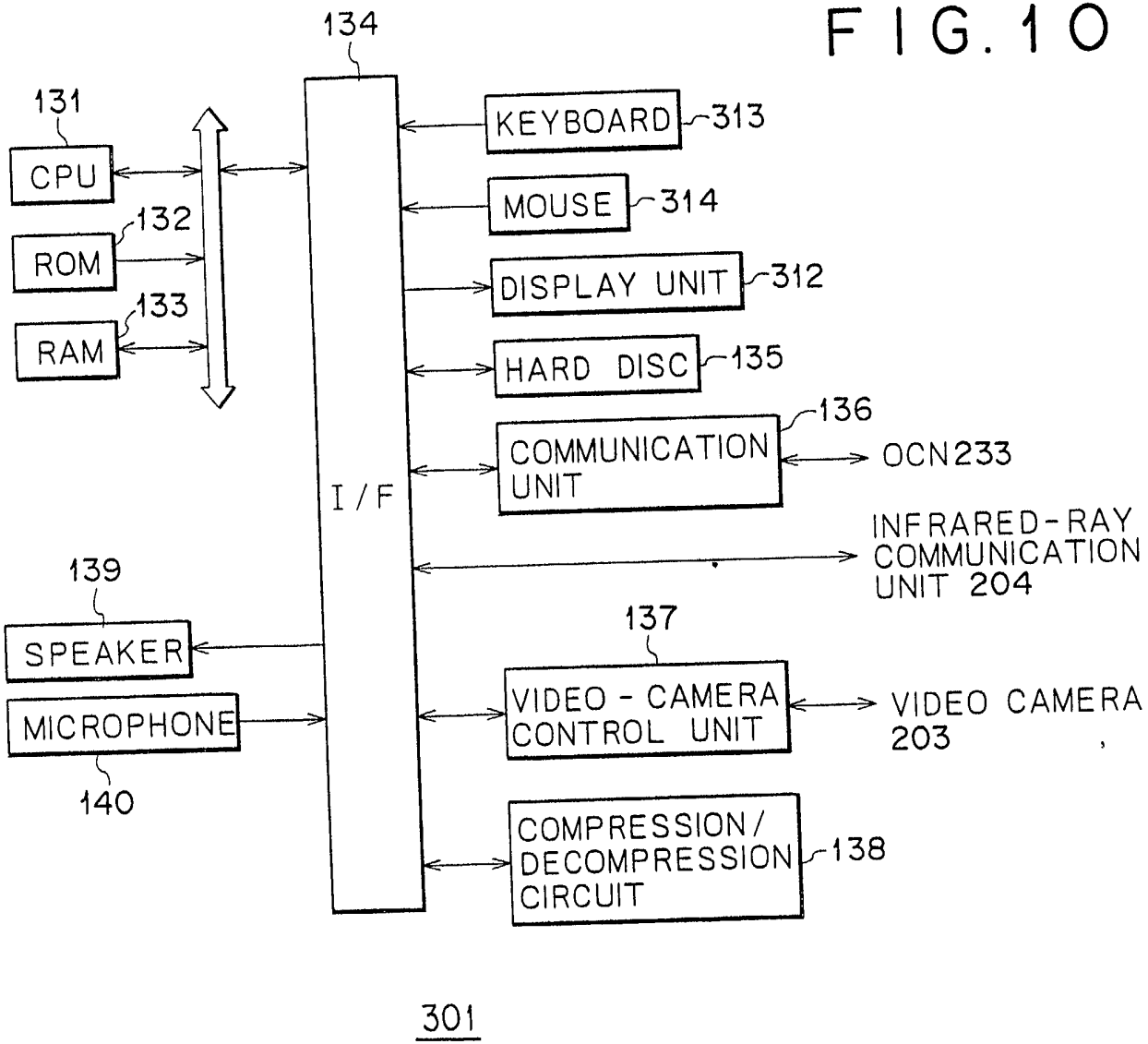

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FIG. 11

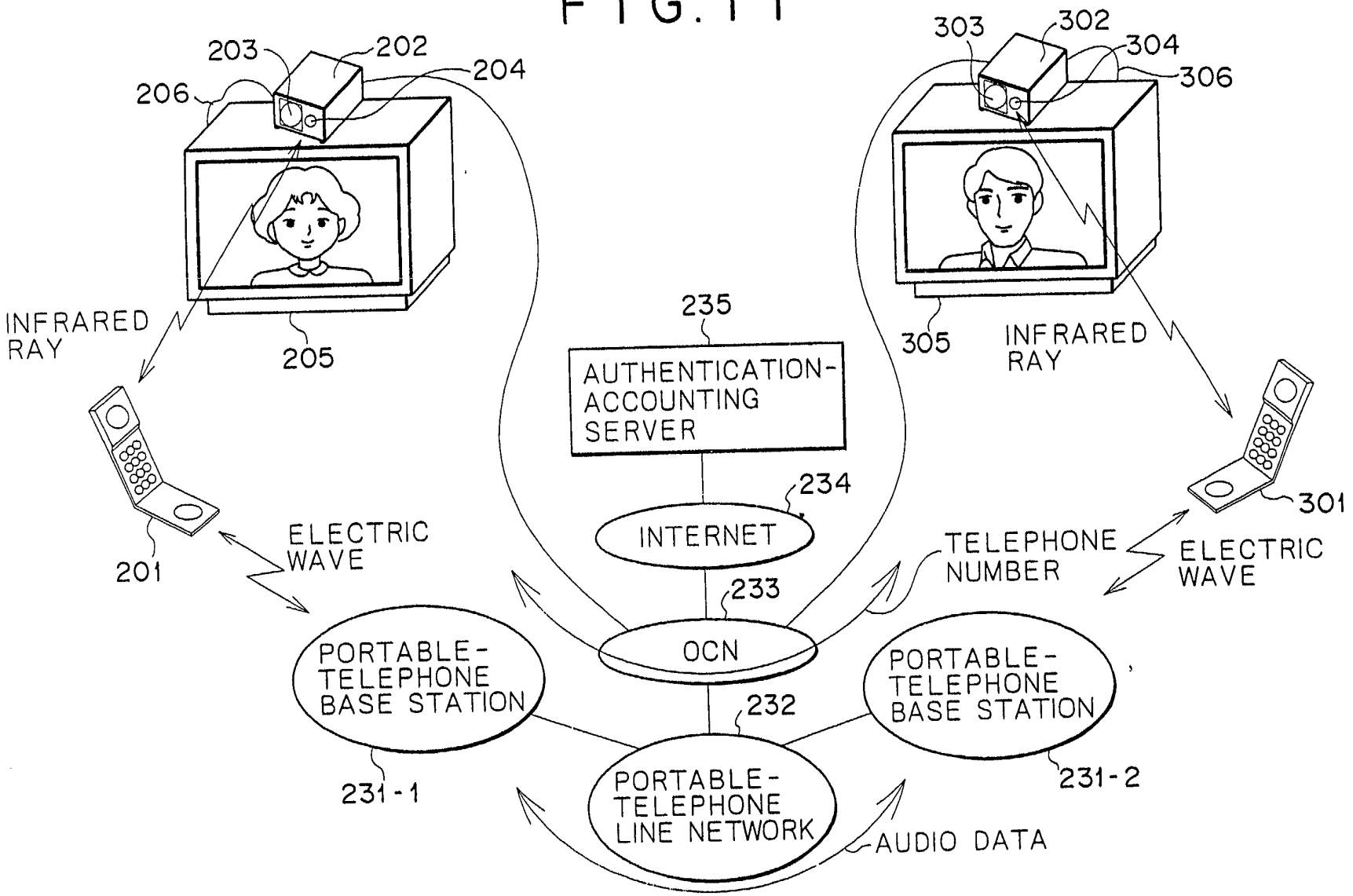


FIG. 12

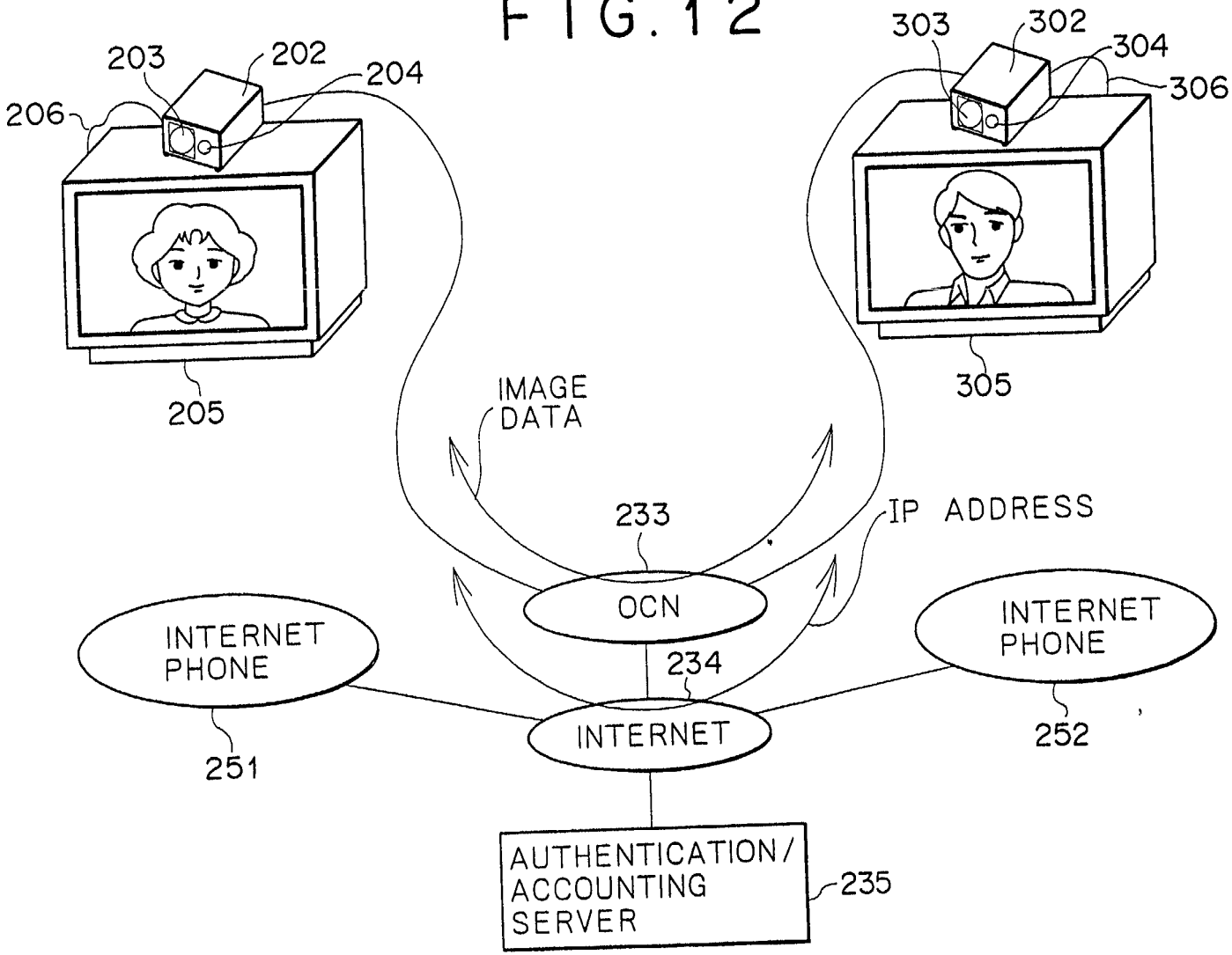

203
202
204
206
205
303
302
304
306
305
IMAGE DATA
IP ADDRESS
233
OCN
234
INTERNET PHONE
INTERNET PHONE
INTERNET
251
252
AUTHENTICATION/ ACCOUNTING SERVER
235

FIG. 13

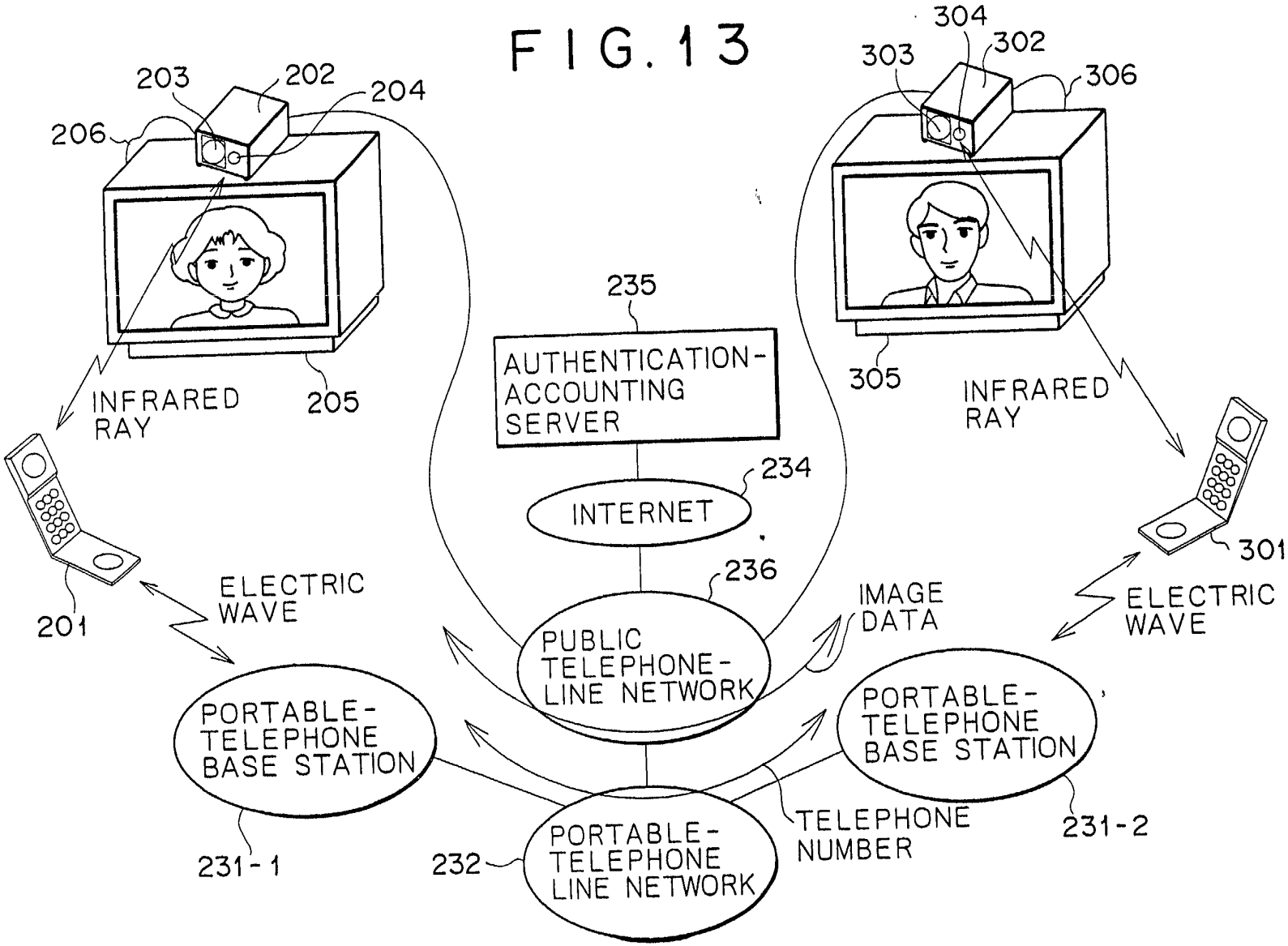
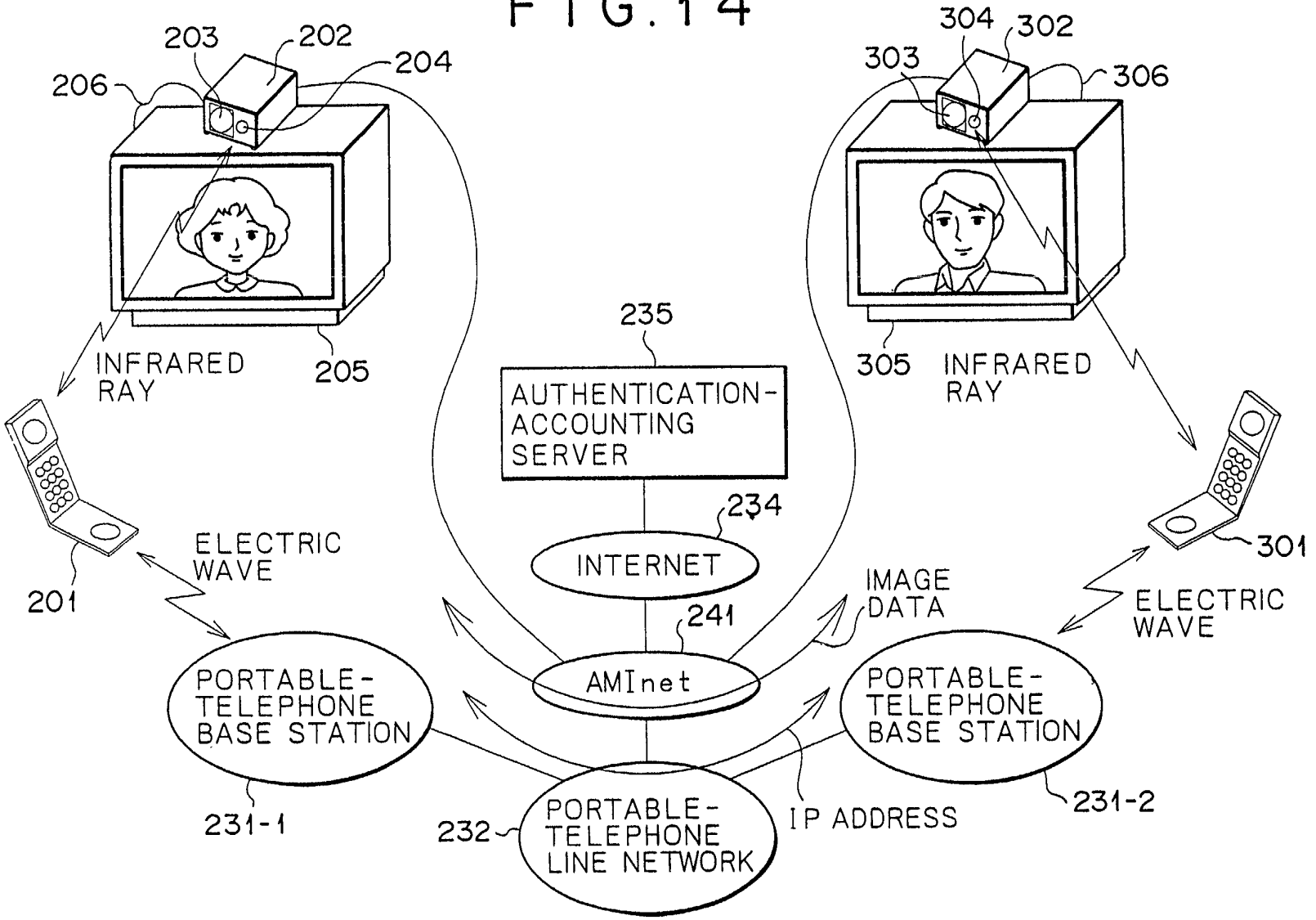

203
202
204
206
205
INFRARED RAY
201
ELECTRIC WAVE
235
AUTHENTICATION-ACCOUNTING SERVER
234
INTERNET
236
PUBLIC TELEPHONE-LINE NETWORK
PORTABLE-TELEPHONE BASE STATION
231-1
232
PORTABLE-TELEPHONE LINE NETWORK
TELEPHONE NUMBER
IMAGE DATA
PORTABLE-TELEPHONE BASE STATION
231-2
ELECTRIC WAVE
301
304
303
302
306
305
INFRARED RAY

FIG. 14


203
202
204
206
INFRARED RAY
205
235
AUTHENTICATION-ACCOUNTING SERVER
234
INTERNET
241
AMInet
304
302
303
306
305
INFRARED RAY
301
ELECTRIC WAVE
201
IMAGE DATA
ELECTRIC WAVE
PORTABLE-TELEPHONE BASE STATION
231-1
PORTABLE-TELEPHONE BASE STATION
231-2
232
PORTABLE-TELEPHONE LINE NETWORK
IP ADDRESS